

## Abstract of the Disclosure

A catheter tip apparatus is arranged in a catheter for the delivery and collection of an energy signal to permit analysis and/or treatment of body tissue by the energy signal. The apparatus comprises an elongated housing having a plurality of annularly disposed elongated grooves arranged thereon; and a flexible energy-bearing fiber arranged in each of the elongated grooves. Each of the fibers have a proximal end in communication with an energy delivery source or a signal analysis center. Each of the fibers also have a distalmost end in communication with a reflector for analysis and treatment of body tissue in which the catheter is disposed.